

Notice of Allowability

Application No.

09/987,954

Examiner

Joni Hsu

Applicant(s)

BLAIS, MARC A.

Art Unit

2628

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to papers received February 15, 2007.
2. ☒ The allowed claim(s) is/are 1,3,5,6,8,9,12-14,17,18 and 20-25.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's arguments, see pages 9-10, filed February 15, 2007, with respect to Claims 1, 3, 5, 6, 8, 9, 12-14, 17, 18, 20, and 21 have been fully considered and are persuasive. The 35 U.S.C. 102(b) rejections of Claims 1, 3, 9, and 21 and the 35 U.S.C. 103(a) rejections of Claims 5, 6, 8, 12-14, 17, 18, and 20 has been withdrawn.

2. With regard to Beach (US005953017A), Applicant argues that the portion of Beach relied on in the Office Action teaches compressing a tree structure of displayed text items. Beach does not teach storing and selectively decompressing a portion of compressed graphic image display data (page 9).

In reply, the Examiner agrees and the rejections are withdrawn.

3. With regard to Hardy (US005640496A), Applicant argues that Hardy teaches removing unused nodes from the linked list to the free list, and therefore does not teach maintaining in the linked list the node flagged as unused when the node flag is set (page 10).

In reply, the Examiner agrees and the rejections are withdrawn.

Allowable Subject Matter

4. Claims 1, 3, 5, 6, 8, 9, 12-14, 17, 18, and 20-25 are allowed.

The following is an examiner's statement of reasons for allowance:

5. The prior art taken singly or in combination do not teach or suggest a system for display a graphic image of interest based on compressed graphic image display data, the system comprising means for storing the compressed graphic image display data in the memory with a linked list in the memory, the linked list including a plurality of nodes, wherein each node comprises a flag field for flagging the node as unused if the node does not include compressed graphic image display data for the graphic image of interest; means for selectively decompressing a portion of the compressed graphic image display data as stored in the memory based on a selected coverage section of the graphic image display data, the portion including only relevant data corresponding to the graphic image of interest; and display means for displaying the graphic image of interest based exclusively on the portion of the compressed graphic image display data as decompressed, as recited in Claims 1, 9, and 21. Claims 3, 5, 6, 8, 12, 13, 20, and 22-24 depend from these claims, and therefore also contain allowable subject matter.

The prior art also does not teach a method for display geographic images from compressed geographic image display data files stored on a storage device, the method including the steps of loading the file that includes compressed display data for the requested first area of interest into one of a plurality of nodes of a linked list in a memory, wherein the compressed display data includes overhead data that defines a geographical extent of the file, wherein the overhead data includes latitude and longitude vertices, wherein each node comprises a flag field; flagging as unused nodes in the linked list that do not include compressed display data for the first area of interest; decompressing a portion of the file as loaded into memory, the portion

including data corresponding to the first area of interest, as recited in Claim 14. Claims 17, 18, and 25 depend from Claim 14, and therefore also contain allowable subject matter.

6. The closest prior art (Tyler US005638498A) teaches compressing an image bitmap object (Col. 2, lines 60-67). Region data structures are linked with linked lists (Col. 29, lines 4-9). Regions are designated as either empty regions covering no objects, or non-empty regions covering objects, and only the non-empty bitmap regions are compressed (Col. 3, lines 13-33). Tyler teaches checking whether the band “A” data is in a compressed state. The state of the data (i.e., “compressed” or “not compressed”) for the current band can be retrieved from a “band record”, for example, that stores such information for each band (Col. 13, lines 41-48). Tyler teaches determining where an output scan line intersects regions on that scan line and decompresses the compressed regions when the scan line intersects the regions (Col. 3, lines 27-31). The decompressor then supplies the uncompressed bitmap regions to an output display device for display (Col. 3, lines 9-12). However, Tyler does not teach displaying image based **exclusively** on the portion of the compressed graphic image display data as decompressed.

7. Another prior art (Beach US005953017A) teaches compressing a selected subset of object identifiers in a tree structure (Col. 2, lines 1-4). However, Beach does not teach compressing graphics image display data.

8. Another prior art (Hashimoto US006515673B1) teaches a compression unit used to compress the environment map; division of the environment map into a plurality of tiles and

creation of a header for the compressed environment map. The header contains an offset value for each compressed tile which provides the starting location of a compressed tile within the compressed environment map (col. 5, lines 10-21). Further, Hashimoto et al. discloses compression unit 1410 compressing environment map 940 so that decompression unit 1420 can decompress specific parts of compressed environment map 1430, rather than requiring decompression of compressed environment map 1430 in its entirety (col. 13, lines 64-67; col. 14, lines 1-15). Hashimoto et al. discloses header formation unit 1530 that creates a header 1710 (Fig. 17) for a compressed image, header 1710 containing a tile descriptor which details size of compressed tile, shape of the tile and vertices of the tile in image (col. 14, lines 49-62). However, Hashimoto does not teach a plurality of nodes of a linked list.

9. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Prior Art of Record

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


1. Tyler (US005638498A) teaches compressing multiple types of data objects using compressing mechanisms that are optimized for each type of object according to user constraints (Col. 2, lines 47-54).

2. Beach (US005953017A) teaches compressing a selected subset of object identifiers in a tree structure (Col. 2, lines 1-4).
3. Hashimoto (US006515673B1) teaches providing efficient texture mapping schemes and compression schemes for environment mapping and immersive videos (Col. 4, lines 43-45).
4. Hamilton (US006701420B1) teaches the efficient allocation and reuse of memory (Col. 1, lines 9-11).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joni Hsu whose telephone number is 571-272-7785. The examiner can normally be reached on M-F 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ulka Chauhan can be reached on 571-272-7782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


KEE M. TUNG
SUPERVISORY PATENT EXAMINER

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JH